Average cost per MW of wind power, small hydro projects and biomass power ranges from Rs. 3 to 5 crores.

(d) The gap between the requirement and supply of coal for power generation during Tenth Plan is being bridged through import. As against the projected requirement of 537 million tonne (MT) of coal to achieve the targeted generation in the terminal year of eleventh Plan *i.e.* 2011-12, the availability of coal from domestic sources has been indicated by the Ministry of Coal as 478 MT. The deficit is planned to be met through import of coal.

The domestic production and supply of gas is not keeping pace with the growing demand of gas in the country. Against the present requirement of about 53 Million Metric Standard Cubic Metre per days (MMSCMD) of gas, the average supply for the period April-September 2006, has been about 33 MMSCMD. To overcome the shortage of gas for power generation, Ministry of Petroleum and Natural Gas is taking necessary steps to increase availability of gas from domestic sources by awarding gas blocks for exploration and production as well as import of LNG and natural gas through international gas pipeline.

There has not been any report of shortage of Naptha and other liquid fuels being used for generation of power. However, their use is restricted on account of high cost of generation based on these fuels.

(e) The capacity addition programme in eleventh Plan is being planned keeping in view the per megawatt cost of installation and availability and price of fuel. As the position about anticipated availability of gas and its price is not yet clear, limited generation capacity based on gas has presently been envisaged for implementation during eleventh Plan.

Inter-region power transmission

†2043. SHRI RAM JETHMALANI:
DR. MURLI MANOHAR JOSHI:

Will the Minister of POWER be pleased to state:

(a) whether it is a fact that low capacity inter-region power transmission in the country has forced stopping of power generation in many projects;

†Original notice of the question was received in Hindi.

(b) if so, the facts in this regard;

(c) the installed capacity of inter-region power transmission in the country at present alongwith the target for its expansion and the time by which it is to be achieved; and

(d) whether the gap existing between the demand and supply of power in the country will be narrowed after achieving the said target?

THE MINISTER OF POWER (SHRI SUSHILKUMAR SHINDE): (a) to (c) The transmission system in the country is developed in a planned manner matching with generation addition programme and power contracted on long term basis. With each new generation, there is corresponding associated transmission system to evacuation power from the generation project and transmit to the load centres in the State(s) to which power is allocated and is to be consumed on long-term basis. Accordingly, transmission system to cater to network strengthening needs and to meet growing load demand in various areas is also developed as and when needed. The inter-regional transmission capacity was increased from 3500 MW in 1998 to 5400 MW in 2002, 8400 MW in 2004, 9450 MW in 2005 and 11450 MW in 2006. It is envisaged to increase the inter-regional transmission capacity to approximately 37000 MW by 2012. A Statement indicating the existing inter-regional links and the links planned for completion up to 2012, with their inter-regional power transfer capacity, is enclosed. (*See* below)

By and large, there is adequate inter-regional and inter-state transmission for wheeling of power contracted on long term basis. Only on occasion when unplanned supply from a generation source to a consumption source is attempted on a short-term basis, sometimes difficulties are experienced. This also will be adequately addressed with the expansion of national grid capacity. The magnitude of short-term traded power is low and the inter-state and inter-regional transmission corridors are able to cater to the need of trading most of the times.

(d) The inter-regional transmission links facilitate transmission of power across the regional boundaries to achieve demand-generation balance on all-India basis. In order to bridge the gap between demand and supply of power, matching generation capacity addition has been planned.

Statement

National grid-details of inter-regional transmission capacities

(i) Existing and programmed for completion by end of 10th Plan (March, 2007):

Name of System	Existing Transmission Capacity (as on Oct., 2006)	Additional Capacity under construction to be added Nov., 06-Mar., 07	Transmission Capacity at the end of 10th Plan (end of 2006-07)
1	2	3	4
ER-SR:			
Gazuwaka HVDC back-to-back	1000		1000
Balimela-Upper Sileru 220KV S/C	100		100
Talcher-Kolar HVDC bipole	2000		2000
ER-SR TOTAL:	3100		3100
ER-NR:			
Muzaffarpur-Gorakhpur 400 KV D/C (Quad Moose) with series comp	2000		2000
Dehri-Sahupuri 220KV S/C	100		100
Sasaram HVDC back-to-back	500		500
Biharsharif-Balia 400KV D/C quad increased loadability with series capacitor in associated lines in NR system		1600	1600
Patna-Balia 400KV D/C quad increased loadability with series capacitor in associated lines in NR system		1600	1600
ER-NR TOTAL:	2600	3200	3200
ER-WR:			
Rourkela-Raipur 400KV D/C (without SC)	1000		1000
TCSC on Rourkela-Raipur 400KV D/C	400		400

1	2	3	4
Budhipadar-Korba 220KV D/C+S/C	400		400
ER-WR TOTAL:	1800		1800
ER-NER:			
Birpara-Salakati 220KV D/C	250		250
Malda-Bongaigaon 400KV D/C	1000		1000
ER-NER TOTAL:	1250		1250
NR-WR:			
Vindhyachal HVDC back-to-back	500		500
Auriya-Malanpur 220KV D/C	250		250
Kota-Ujjain 220KV D/C	250		250
Agra-Gwalior 765KV S/C line-1 400KV op.		1100	1100
NR-WR TOTAL:	1000	1100	2100
WR-SR:			
Chandrapur HVDC back-to-back	1000		1000
Barsur-L. Sileru 200KV HVDC monopole	200		200
Kolhapur-Belgaum 220KV D/C	250		250
Ponda-Nagajhari 220KV D/C	250		250
WR-SR TOTAL:	1700		1700
TOTAL ALL INDIA (end of 10th Plan)	11450	4300	15750

(ii) *National grid-details of inter-regional transmission capacities—transmission capacities for addition during 11th plan (2007-12):*

Name of System	Additions during 11th plan *i.e.* 2007-12	
1	2	3
ER-SR:		
Upgradation of Talcher-Kolar HVDC bi-pole	500	
ER-SR TOTAL:		500

1	2	3
ER-NR:		
Barh-Balia 400KV D/C quad increased loadability with series capacitor in associated lines in NR	1600	
System Sasaram-Fatehpur 765KV S/C (40% SC)	2300	
Sasaram-Balia 400KV D/C quad increased loadability with series capacitor in associated lines in NR System	1600	
ER-NR TOTAL:		5500
ER-WR:		
Ranchi-Sipat 400KV D/C (40% SC)	1000	
Ranchi-Rourkela-Raipur 400KV D/C	1400	
North Karanpura-Sipat 765KV S/C	2300	
ER-WR TOTAL:		4700
ER-NER:		
Bongaigaon-Siliguri 400KV D/C quad	1000	
ER-NER TOTAL:		1000
NR-WR:		
Agra-Gwalior 765KV line-1 765KV	1200	
Agra-Gwalior 765KV line-2	2300	
Kankroli-Zerda 400 KV D/C	1000	
RAPP-Nagda 400 KV D/C	1000	
NR-WR TOTAL:		5500
WR-SR:		
Parli-Raichur 400KV D/C	1000	
WR-SR TOTAL:		1000
NER-NR/WR:		
Bishwanath Chariyali-Agra HVDC bi-pole+800KV	3000	
NER-NR/WR TOTAL:		3000
TOTAL ALL INDIA (during 11th Plan)		21400